

Claims

1. A one-part dental adhesive composition comprising, as essential compounding ingredients:

a hydrophobic acidic group-containing polymeric monomer (a);

a water-soluble polymeric monomer (b);

water (c);

a photopolymerization initiator (d);

an aromatic tertiary amine (e) having an electron-withdrawing group;

a cross-linkable polymeric monomer (f); and

a basic compound (g) for producing a water-soluble salt through a reaction with a part of said hydrophobic acidic group-containing polymeric monomer (a).

2. A one-part dental adhesive composition comprising, as essential compounding ingredients:

1 through 50 wt% of a hydrophobic acidic group-containing polymeric monomer (a);

1 through 60 wt% of a water-soluble polymeric monomer (b);

1 through 50 wt% of water (c);

0.01 through 10 wt% of a photopolymerization initiator (d);

0.01 through 10 wt% of an aromatic tertiary amine (e) having an electron-withdrawing group;

5 through 60 wt% of a cross-linkable polymeric monomer (f); and

a basic compound (g) for producing a water-soluble salt through a reaction with a part of said hydrophobic acidic group-containing polymeric monomer (a) in an amount for adjusting pH of a resultant liquid to 1.5 through

4.0.

3. The one-part dental adhesive composition of Claim 2,

wherein said cross-linkable polymeric monomer (f) is included in a ratio of 25 through 60000 parts by weight based on 100 parts by weight of said basic compound (g).

4. The one-part dental adhesive composition of any of Claims 1 through 3,

wherein said hydrophobic acidic group-containing polymeric monomer (a) is a (meth)acrylate-based polymeric monomer having, in one molecule, at least one univalent or bivalent phosphoric or pyrophosphoric group, and

said basic compound (g) is an aromatic secondary amine or an aromatic tertiary amine for producing the water-soluble salt through the reaction with a part of said hydrophobic acidic group-containing polymeric monomer (a).

5. The one-part dental adhesive composition of any of Claims 1 through 3,

wherein said hydrophobic acidic group-containing polymeric monomer (a) is a (meth)acrylate-based polymeric monomer having, in one molecule, at least one univalent or bivalent phosphoric or pyrophosphoric group, and

said basic compound (g) is an aliphatic secondary amine or an aliphatic tertiary amine for producing the water-soluble salt through the reaction with a part of said hydrophobic acidic group-containing polymeric monomer (a).

6. The one-part dental adhesive composition of any of Claims 1 through 3,

wherein said hydrophobic acidic group-containing polymeric monomer (a) is a (meth)acrylate-based polymeric monomer having, in one molecule, at

least one univalent or bivalent phosphoric or pyrophosphoric group, and

said basic compound (g) is an aliphatic secondary amine having a hydroxyl group or an aliphatic tertiary amine having a hydroxyl group for producing the water-soluble salt through the reaction with a part of said hydrophobic acidic group-containing polymeric monomer (a).

7. The one-part dental adhesive composition of any of Claims 1 through 6, further comprising a water-soluble volatile organic solvent (h).

8. The one-part dental adhesive composition of any of Claims 1 through 7, further comprising a filler (i).